

HONORS

Angeliki Cutchis, a member of the staff of the Bumblebee Systems Analysis Group and the Bumblebee Dynamics Group, has been named by the President of The Johns Hopkins University as the 1964-65 recipient of the William S. Parsons Fellowship. Mrs. Cutchis, the tenth APL scientist to receive this Fellowship, and the first woman so honored, will do research in the "general field of statistical theory for multi-dimensional sample spaces."

R. E. Walker, supervisor of the Rockets Project of the Hypersonic

Propulsion Group, was the recipient of one of two annual National Capital Awards given by the Washington Academy of Sciences and the D.C. Council of Engineering and Architecture Societies. Dr. Walker was cited for "outstanding contributions to the fundamental understanding of combustion processes both in ramjet and rocket engines and the application of this knowledge to improved engine performance." Dr. Walker was a co-author of "Secondary Gas Injection Thrust Vector Control" in the *Digest* of Mar.-Apr. 1963.

APPOINTMENTS

P. E. Clark, supervisor of the Editorial Project of the Technical Reports Group, has been named APL correspondent for *The Capital Chemist*, a publication of the Washington Section of The American Chemical Society. Dr. Clark has been Managing Editor of the *APL Technical Digest* since its inception in 1961.

M. L. Hill, who was a co-author of "Thermal Insulation for Hypersonic Vehicles," in the *Digest* for July-Aug. 1962, and is the author

of an article in the present number, has been elected president of the U. S. Academy of Model Aeronautics for 1964. Mr. Hill holds the world's altitude record for radio-controlled model airplanes—13,320 ft. (see *Digest*, July-Aug. 1963, p. 19).

A. I. Mahan, a member of the staff of the Research Center, has been elected by the American Optical Society to the Governing Board of the American Institute of Physics.

APL COLLOQUIA

Feb. 7—"Some Experiments in Non-linear Optics," by P. D. Maker, Ford Motor Company.

Feb. 14—"Noble Gas Compounds," by A. V. Grosse, Temple University.

Feb. 21—"Where Are the Frontiers of Information and Data Processing Today?" by S. N. Alexander, National Bureau of Standards.

Feb. 28—"Trends and Issues in Scientific Manpower Production," by L. R. Harmon, National Academy of Sciences.

Mar. 6—"Panel Flutter—Classical Small Oscillation Theory Revisited," by A. H. Flax, Department of Defense.

Mar. 13—"Research and Education in Oceanography at The Johns Hop-

kins University," by D. W. Pritchard, The Johns Hopkins University.

Mar. 20—"The Nature of Stable and Unstable Waves in Plasmas and Other Dispersive Media," by A. Bers, Massachusetts Institute of Technology.

Apr. 3—"New Insight Into Elementary Particles—the Eightfold Way," by R. E. Behrends, Yeshiva University.

Apr. 10—"Some Experiments with High Constant-Speed Rotors," by J. W. Beams, University of Virginia.

Apr. 24—"Chebyshev Approximation—the Minimax Criterion as an Alternative to Least Squares," by R. W. Hamming, Bell Telephone Laboratories.

ADDRESSES

A. J. Zmuda, G. F. Pieper, and C. O. Bostrom, "The Inner Van Allen Belt, Magnetic Storms, and Solar-Proton Events," *American Physical Society*, New York, Jan. 23, 1964.

W. H. Mautz (Moderator, The Research and Engineering Management Roundtable Meeting), "The Federal R & D Budget for 1965," *National Science Foundation*, Washington, D. C., Feb. 6, 1964.

I. Katz, "Radar Reflectivity of the Earth's Surface," *I.E.E.E., Washington Chapter*, Feb. 18, 1964.

W. H. Avery, "Hypersonic Air-breathing Propulsion," *A.I.A.A., National Capital Section, Satellite Seminar*, Applied Physics Laboratory, Feb. 19, 1964.

T. S. Taves, "Navy Games," *Washington Operations Research Council, War Gaming Symposium*, Washington, D. C., Mar. 16, 1964.

A. G. Carlton, "Twenty Years of Cybernetics," *I.E.E.E.-A.S.M.E. Joint Conference, Automatic Control Group of Baltimore*, Mar. 18, 1964.

R. E. Fischell, "The ANNA Geodetic Satellite," *A.I.A.A., Baltimore Section*, Mar. 18, 1964.

W. Liben, "Microelectronics—Survey of the Present State of the Art," *The Johns Hopkins University, Graduate Seminar*, Mar. 18, 1964.

J. O. Artman and J. C. Murphy, "Dipolar Contributions to Ruby and Corundum Lattice Sums," *American Physical Society*, Philadelphia, Mar. 23, 1964.

R. E. Gibson, "The Strategy of Corporate Research and Development," *Seminar on The Strategy of Corporate Research*, University of California, Los Angeles, Mar. 25-26, 1964.

A. I. Mahan, "Absorption, Stimulated Emission and Maxwell's Equations," *Optical Society of America*, Washington, D. C., Apr. 1, 1964.

R. E. Fischell and L. Wilson, "Spacecraft Applications of Subliming Materials," *A.I.A.A., Structures and Materials Conference*, Palm Springs, Calif., Apr. 1-3, 1964.

PUBLICATIONS

- R. R. Newton, "Damping of a Gravitationally Stabilized Satellite," *A.I.A.A. J.*, **2**, Jan. 1964, 20-25.
- R. H. Cantrell, "Reply by Author to W. H. Anderson," *A.I.A.A. J.*, **2**, Feb. 1964, 406-407.
- G. Costa, "FM Preamp Uses VHF Ferrite Transformer," *Electronic Design*, **12**, Feb. 3, 1964, p. 51.
- M. Davidson, "Measuring Phase Stability of Ultrasonic Delay Lines," *Electronic Industries*, **23**, Feb. 1964, p. 75.
- C. J. O'Brien, "The Communicator and the NLRB," *ICIE Reporting*, **16**, Feb. 1964, 16-18.
- J. E. Creeden and J. S. King, "Multiple Simultaneous Imaging Schlieren System," *J. Roy. Aeronaut. Soc.*, **68**, Mar. 1964, p. 199.
- B. S. Walker, "Push-Button War," *The Johns Hopkins Magazine*, **XV**, Mar. 1964, 10-11, 17.

PATENTS

- A. B. Nepple—*Method for Coupling a Pair of Cylindrical Members in End to End Abutment*, Patent No. 3,116,547.
- A. B. Carver—*Connector for Semi-Rigid Coaxial Cable*, Patent No. 3,117,357.
- R. E. Fischell and T. Wyatt—*Magnetic Attitude Control*, Patent No. 3,118,637.

WITH THE AUTHORS



M. L. Hill, author of "Materials for Structural Use at Temperatures Above 3000°F," was a co-author of "Thermal Insulation for Hypersonic Vehicles" in the *Digest* for July-Aug. 1962. Mr. Hill received his M.S. degree in metallurgy from Pennsylvania State University in 1950, and came to APL in 1960 from the Westinghouse Corp. He has specialized in studies of gases in metals and the effect of trace impurities on the mechanical and physical properties of metals and semiconductors. He is now supervisor of the High-Temperature Materials Project of the Bumblebee Flight Research Group. Mr. Hill is a member of the American Society for Metals, the American Institute of Mining and Metallurgical Engineers, and the American Rocket Society. (See also *Appointments*, page 24.)

D. J. Williams, a native of Jaffrey, New Hampshire, is co-author

of "The Earth's Albedo Neutron Flux." He received his B.S., M.S., and Ph.D. degrees in physics from Yale University, the latter in 1961, and held Silliman-Sloane, Bell Telephone Laboratories, and National Science Foundation Fellowships.



From 1955-57, Dr. Williams served as a computer programmer in the USAF Air Research and Development Command. He came to APL in 1961 as a specialist in this field and in nuclear physics, and was assigned to the Space Research and Analysis Group. He has conducted basic research in space phenomena, especially radiation measurements, and was responsible for organizing the "Albedo Neutron Conference" recently held at this Laboratory. He has also been instrumental in setting up a system of data reduction programs for the Laboratory's series of experimental and research satellites. Dr. Williams is serving on the *APL Technical Digest* Editorial

Board, and is a member of the American Physical Society and the American Geophysical Union.

C. O. Bostrom, co-author of "The Earth's Albedo Neutron Flux," was born in Port Jefferson, New York. He received his B.S. degree in physics from Franklin and Marshall College, his M.S. degree from Yale University, and, in 1962, his Ph.D. degree in physics from Yale University. Before joining APL in 1960,



Dr. Bostrom was employed as an engineer and consultant by the Technical Measurement Corporation. He is currently a member of the staff of the Laboratory's Space Research and Analysis Group, conducting research on particle fluxes in outer space, and on satellite instrumentation. Dr. Bostrom is a member of the American Physical Society and the American Geophysical Union.

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